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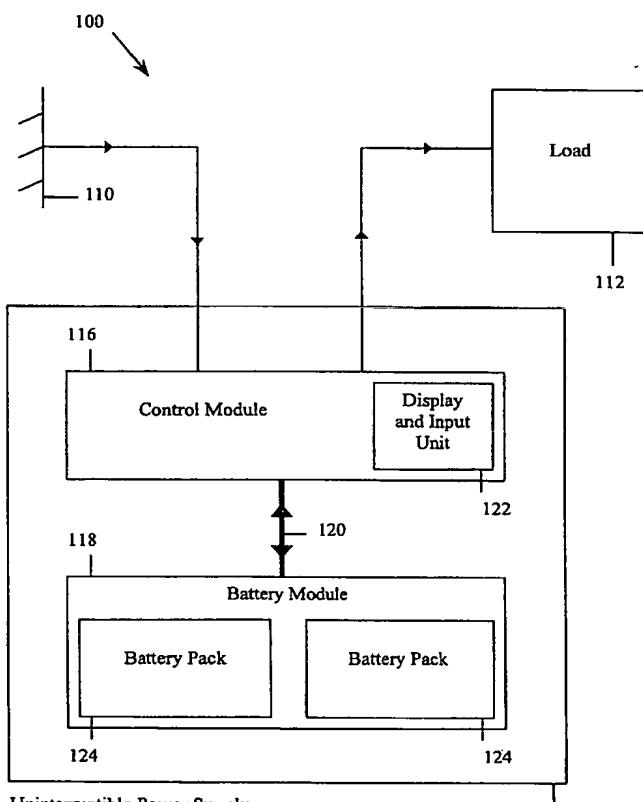
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[Continued on next page]

(54) Title: UNINTERRUPTIBLE POWER SUPPLY APPARATUS AND METHOD



(57) Abstract: An uninterruptible power supply device (114) for supplying electrical energy to one or an array of loads (112) having a broad range of power requirements, the uninterruptible power supply (114) including: at least one power means (118) for providing electrical energy for the said one load (112); and control means (116), connected to the or each power means (118) and the load (112) wherein; the or each power means (118) incorporates a plurality of electrical potential energy storage units (124); and the control means (116) is arranged to connect the electrical potential energy storage units (124) according to the power required by the load (112), the same power means being employable for each one of the array of loads (112).

**Published:**

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INTERNATIONAL SEARCH REPORT

Inte
nal Application No
PCT/GB 03/00839

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H02J9/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H02J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/061822 A (LIEBERT CORP) 23 August 2001 (2001-08-23) page 3, line 2 - page 6, line 17; figures 2,3 page 6, line 29 - page 7, line 4 page 11, line 1 - page 12, line 2 page 24, line 23 - page 25, line 7	1,2, 17-19,30
Y	-----	3,15
X	US 5 332 927 A (PAUL STEVEN ET AL) 26 July 1994 (1994-07-26) column 6, line 62 - column 7, line 17; figure 3 column 10, line 16 - line 29	28
Y	----- -/-	3,15

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

Date of the actual completion of the International search

25 November 2003

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INTERNATIONAL SEARCH REPORT

Inter al Application No
PCT/GB 03/00839

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 295 215 B1 (AKBARI EDWARD ET AL) 25 September 2001 (2001-09-25) column 5, line 66 - line 39; figure 3 -----	30
X	WO 01/093403 A (VARENNE CHRISTIAN DE ;DUGUAY LOUIS (CA); GOT PIERRE (CA); ASTEC I) 6 December 2001 (2001-12-06) abstract; figure 1 page 1, line 12 - line 35 page 5, line 19 - page 7, line 8 -----	1
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 03/00839

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: 37 because they relate to subject matter not required to be searched by this Authority, namely:
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-19, 21, 28-30

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB 03/00839

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-19, 21, 28-30

1.1. claims: 1-14, 21

UPS device comprising power means and control means; the power means incorporates a plurality of electrical energy storage means, each storage unit providing the same electrical potential energy; the control means is arranged to connect the electrical potential storage units according to the power required by the load, the same power means being employable for each one of the array of the loads.

1.2. claims: 28-29; 15-16

Provision of dual mains input for an UPS

1.3. claims: 30; 17-19

Provision of bypass capability for an UPS

2. claims: 31-33; 22-24

Provision of a rotating LCD display unit for an UPS

3. claims: 34-36; 20; 25-27

Provision of multi-format design for an UPS: modular units being configurable into rack-mount or standalone format

INTERNATIONAL SEARCH REPORT

Information on patent family members

Intel'l Application No

PCT/GB 03/00839

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